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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,545	03/29/2001	Francois Breynaert	60130-865	7785

7590 05/23/2002  
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EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/601,545

Applicant(s)

BREYNAERT, FRANCOIS

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 claims the same subject matter of previous claim 2.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 8 recites the limitation "vehicle function device". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,231,321 to Takiguchi.

7. Takiguchi clearly teaches the construction of a noise suppression system for a permanent-magnet motor (1), in which:

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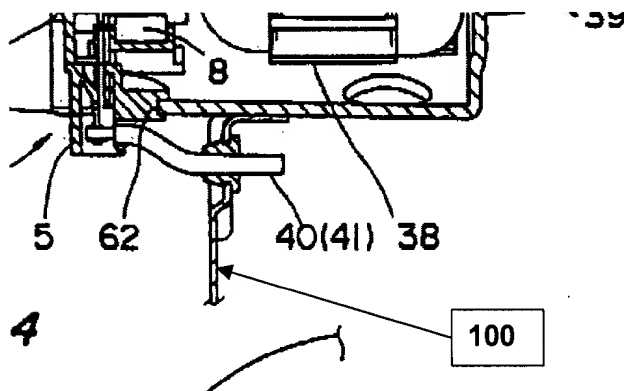
the motor includes supply brushes (26, 27) connected to an external power supply by leads (40, 41), which are associated with inductors (6, 7);

and a metal casing (5), characterized in that:

each brush is connected to the metal casing of the motor through at least one noise suppression capacitor (8),

in that the metal casing of the motor is connected to the vehicle's earth, and

that the metal casing of the motor and the functional device have complementary means (100, added by the examiner) for earthing the casing.



8. With regards to claim 4, Takiguchi disclose a permanent magnet motor wherein the means for earthing the casing of the motor comprise means (100) for fastening this motor to the functional device.

### *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,949,173 to Wille et al.

Takiguchi discloses the claimed invention except for supply leads being formed by ferrite-loaded wires.

Wille et al. teaches the use of ferrite core choke coils on a motor for the purpose of connecting the brushes and the respective current bus bar.

It would have been obvious to one skilled in the art at the time the invention was made to use the ferrite core choke coils disclosed by Wille et al. on the permanent-magnet motor disclosed by Takiguchi for the purpose of connecting the brushes and the respective current bus bar.

11. Claims 5- 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,717,270 to Lau et al.

Takiguchi disclose the construction of a noise suppression system for a permanent-magnet motor as described above.

However, it fails to disclose each of said brushes is separately connected to said casing by at least one noise suppression capacitor.

Lau et al. teach the construction of a rotor of an electric motor wherein:

each of the brushes (column 3, lines 14-17) is separately connected to a star point and to the terminal portion of the commutator segment by at least one noise suppression capacitor (44) for the purpose of maintaining a minimum length of the commutator/rotor;

a shaft (21) rotatable relative to said casing having an output;

a plurality of capacitors (44) with at least one of said capacitors separately connecting each of said brushes to said casing for suppressing noise (Figure 4);  
said casing being grounded (100, added by the examiner) via connection to a vehicle function device;

each of said brushes is connected to said power supply with a supply lead forming a plurality of noise suppression circuits (Figure 4).

It would have been obvious to one skilled in the art at the time the invention was made to use the separately connected noise suppression capacitors, brushes and shaft disclosed by Lau et al. on the noise suppression system disclosed by Takiguchi for the purpose of maintaining a minimum length of the commutator/rotor.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,717,270 to Lau et al. as applied to claims 5-10 above, and further in view of U.S. Patent No. 5,949,173 to Wille et al.

Takiguchi in view of Lau et al. disclose the construction of a noise suppression system as described above.

However, it fails to disclose the use of supply leads formed by ferrite-loaded wires.

Wille et al. teaches the use of ferrite core choke coils on a motor for the purpose of connecting the brushes and the respective current bus bar.

It would have been obvious to one skilled in the art at the time the invention was made to use the ferrite core choke coils disclosed by Wille et al. on the noise suppression system disclosed by Takiguchi in view of Lau et al. for the purpose of connecting the brushes and the respective current bus bar.

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***Response to Arguments***

13. Applicant's arguments filed on March 5, 2002 have been fully considered but they are not persuasive.

14. In response to applicant's argument that Takiguchi does not disclose the feature of each brush being connected to the motor casing with at least one noise suppression capacitor, it must be noted that claim 1 does not specifies one capacitor between each brush and the motor casing as claims 5 and 6.

15. In response to applicant's argument that Takiguchi does not disclose a complementary means for grounding the motor casing, it must be noted that all electrical equipment, especially motors and generators, need a proper and reliable connection to ground to operate properly. In the particular case of a motor vehicle generator as the one being claimed, all parts of the motor are functional and any metal part can be used as a "complementary means" for grounding the motor casing as long as it makes a physical connection between the motor casing and the vehicles ground.

16. In response to applicant's argument that the combination of Takiguchi and Wille et al. does not disclose the feature of claim 3, Wille et al. does disclose the use of ferrite-loaded wires, which can be used in combination with the noise suppression system disclosed by Takiguchi in view of the previous responses.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

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18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas  
May 17, 2002

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800